

SPIVAK, M.S., golovnyy redaktor; BILOZUB, V.G., redaktor; VASILENKO, P.M., redaktor; ZORIN, I.G., redaktor; IL'CHENKO, I.K., redaktor; KOVAL', O.G., redaktor; KRILOV, O.F., redaktor; PUKHAL'S'KIY, A.V., redaktor; SIDORENKO, O.P., redaktor; FEDCHENKO, O.N., redaktor; ANGELINA, P.M., redaktor; BUZANOV, I.F., redaktor; BOYKO, D.V., redaktor; BURKATS'KA, G.E., redaktor; VASILENKO, A.O., redaktor; VIASYUK, P.A., redaktor; GORODNIY, M.G., redaktor; DEMIDENKO, T.T., redaktor; DUBKOVETS'KIY, F.I., redaktor; KIRICHENKO, F.G., redaktor; LITOVCHENKO, G.P., redaktor; OZERNIY, M.O., redaktor; PERSHIN, P.M., redaktor; POPOV, F.A., redaktor; POSMITNIY, M.O., redaktor; PSHENICHNIY, P.D., redaktor; RADCHENKO, B.P., redaktor; POMANENKO, S.S., redaktor; RUBIN, S.S., redaktor; SAVCHENKO, M.Kh., redaktor; SOKOLOVS'KIY, O.N., redaktor; TSIBENKO, K.O., redaktor; SHCHERBINA, O.P., redaktor; KRAVCHENKO, M.F., tekhnichny redaktor

[Collective farm encyclopedia] Kolhospna vyrobnycha ensyklopedia.
Vyd. 2-e, perer. i dop. Kyiv, Derzh.vyd-vo sil's'kohospodars'koi
lit-ry URSR. Vol.1. Abrykos - Liutserna. 1956. 756 p. (MIRA 9:9)
(Agriculture--Encyclopedias and dictionaries)

SPIVAK. M.S.

System of agriculture on collective farms in the Ukrainian S.S.R.
Zemledelie 4 no.8:8-11 Ag '56, (MLRA 10:1)

1. Ministr sel'skogo khozyaystva Ukrainskoy SSR.
(Ukraine--Agriculture)

SPIVAK, M.S.

SPIVAK, M.S., glavnyy red.; BELOZUB, V.G., red.; VASILENKO, P.M., red.;
ZORIN, I.G., red.; IL'CHENKO, I.K., red.; KOVAL', A.G., red.;
KRYLOV, A.F., red.; PUKHAL'SKIY, A.V., red.; SIDORENKO, A.P.,
red.; FEDCHENKO, A.N., red.; ANGELINA, P.N., red.; BUZANOV, I.F.,
red.; BOYKO, D.V., red.; BURKATSKAYA, G.Ye., red.; VASILENKO, A.A.,
red.; VLASYUK, P.A., red.; GORODNIY, N.G., red.; DEMIDENKO, T.T.,
red.; DUBKOVETSKIY, F.J., red.; KIRICHENKO, F.G., red.; LITOVCHENKO,
G.P., red.; OZERNYY, M.Ye., red.; PERSHIN, P.N., red.; POPOV, F.A.,
red.; POSMITHYY, M.A., red.; PSHENICHNYY, P.D., red.; RADCHENKO,
B.P., red.; ROMANENKO, I.N., red.; RUBIN, S.S., red.; SAVCHENKO,
M.Kh., red.; SOKOLOVSKIY, A.N., red.; TSYBENKO, K.Ye., red.;
KOVAL'SKIY, V.F., tekhn.red.

[Practical collective farm encyclopedia] Kolkhoznaya proizvodstven-
naya entsiklopediya. Izd. 2-oe, perer. i dop. Kiev, Gos. izd-vo
sel'khoz. lit-ry USSR. Vol.2. Malina-Iashchur. 1957. 923 p.
(Agriculture--Dictionaries) (MIRA 11:4)

SPIVAK, M.S.

New upsurge of agriculture in the Ukraine. Zemledelie 7 no.11:
23-27 N '59 (MIRA 13:3)

1. Ministr sel'skogo khozyaystva USSR.
(Ukraine--Agriculture)

SPIVAK, Mark Sidorovich; KATSNEL'SON, S.M., red.; ATROSHCHENKO, L.Ye.,
tekhn.red.

[Contribution of the workers of the Ukraine to the advance in
agriculture] Vklad truzhenikov Ukrainy v pod'em sel'skogo
khoziaistva. Moskva, Izd-vo "Znanie," 1960. 35 p. (Vsesoiuznoe
obshchestvo po rasprostraneniu politicheskikh i nauchnykh znani.
Ser.5, Sel'skoe khoziaistvo, no.11). (MIRA 13:6)

1. Ministr sel'skogo khozyaystva USSR (for Spivak).
(Ukraine--Agriculture)

TERESHCHENKO, V.I.; SPIVAK, M.S., red.; KOVALENKO, Ye.I., red.

[Economics and the organization of the production of
broilers in the U.S.A.] Ekonomika i organizatsiia proiz-
vodstva broilerov v SShA. Kiev, Urozhai, 1965. 360 p.
(MIRA 18:7)

SPIVAK, M.Ya.

Frequency of serum sickness following administration of diphtheria serum. Zhur.mikrobiol.epid. i immun. 28 no.1:120-122 Ja '57.

(MLRA 10:3)

1. Iz Novocherkasskoy gorodskoy infektsionnoy bol'nitsy.
(DIPHTHERIA, prevention and control,
immune serum, causing serum sickness (Rus))
(ALLERGY, etiology and pathogenesis,
serum sickness caused by diphtheria serum (Rus))

SPIVAK, M. Ya. (g. Kemerovo, Kirovskiy rayon, ul. Ushakova, 3, kv. 8)

Therapeutic use of garlic and onion phytoncides on tumors. Vop.
onk. 8 no.7:93-96 '62. (MIRA 15:7)

1. Iz kafedry gospital'noy terapii Kemerovskogo meditsinskogo
instituta (rektor - dots. I. F. Popov) i Kemerovskogo oblonko-
dispansera (glav. vrach - M. S. Rappoport).

(TUMORS) (PHYTONCIDES) (GARLIC--THERAPEUTIC USE)
(ONIONS--THERAPEUTIC USE)

SPIVAK, M.Ya.; ARGUDAYEVA, N.A.; NABIYEV, E.G.; CHISTOVICH, G.N.;
RIVLIN, M.I.; SEMENOV, M.Ya.; KRUGLIKOV, V.M.; SHAL'NEVA, A.M.;
TITROVA, A.I.; RAYKIS, B.N.; MILYAYEVA, Ye.N.; BRUDNAYA, E.I.;
GODINA, I.F.; VOL'FSON, G.I.; SOSONKO, S.M.; KOLESINSKAYA, L.A.;
VYSOTSKIY, B.V.; MALYKH, F.S.; MIROTVORTSEV, Yu.I.; SYCHEVSKIY,
P.T.; GOPACHENKO, I.M.; KARPITSKAYA, V.M.; FETISOVA, I.A.;
MARTYNYUK, Yu.V.; EMDINA, I.A.

Annotations. Zhur. mikrobiol., epid. i immun. 40 no.3:128-131
Mr '63. (MIRA 17:2)

1. Iz Kemerovskogo meditsinskogo instituta i Kemerovskoy
klinicheskoy bol'nitsy No.3 (for Spivak, Argudayeva). 2. Iz
Kazanskogo instituta usovershenstvovaniya vrachey imeni
Lenina (for Nabiyev). 3. Iz Leningradskogo kozhnogo dispansera
No. 1 (for Chistovich, Rivlin). 4. Iz Rostovskoy oblastnoy
sanitarno-epidemiologicheskoy stantsii (for Semenov). 5. Iz
Stavropol'skogo instituta vaktsin i syvorotok (for Kruglikov,
Shal'neva, Titrova, Raykis). 6. Iz Kuybyshevskogo instituta
epidemiologii, mikrobiologii i gigiyeny i Tsentral'nogo insti-
tuta usovershenstvovaniya vrachey (for Milyayeva). 7. Iz
Vsesoyuznogo nauchno-issledovatel'skogo instituta zhelezno-
dorozhnoy gigiyeny Glavnogo sanitarnogo upravleniya Minis-
terstva putey soobshcheniya i Detskoy polikliniki st. Lyublino

-(Continued on next card)

SPIVAK, M.Ya.; ARGUDYAYEVA, N.A.; KONOSHENKO, M.F.

Antimicrobial properties of phytoncidin, a medicinal garlic preparation. Antibiotiki 8 no.9:832-833 S '63.

(MIRA 17:11)

1. Kafedra gosspital'noy terapii (zav. A.A. Korolenko) Kemerovskogo meditsinskogo instituta, 3-ya Kemerovskaya gorodskaya klinicheskaya bol'nitsa (glavnyy vrach Z.Ya. Fridman) i Kemerovskiy oblastnoy protivotuberkuleznyy dispanser (glavnyy vrach G.V. Popova).

SPIVAK, M.Ya.; SUKHANOV, A.F.

Effect of phytonalidin on regeneration; experimental and
clinical studies. Eksp. khir. i anest. no. 1:69-70 '65.

(MIRA 18:11)

1. Kafedra gospi tal'noy terapii (zav. - dotsent A.A. Karolenko)
i kafedra gistologii i embriologii (zav. - dotsent A.F. Sukhanov)
Kemerovskogo meditsinskogo instituta.

TRUSHLYAKOV, V.P.; BREZHNEVSKIY, A.I.; SPIVAK, M.Ya.; FINGEYEV, I.A.;
LIPETS, A.U.; AYZEN, B.G.; KOSTOVETSKIY, D.L.; BOLDEHI, K.I.;
YAMPOL'SKIY, S.L.; FEDOTOV, D.K.; KIRILLOV, I.I.; OSHEROV, S.Ya.;
TYSIN, V.A.; OGLOBLIN, G.A.; KANAYEV, A.A.; BULEGA, S.S.;
BORUKHMAN, V.A.; ICEL'SON, V.I.

Inventions. Energ. i elektrotekh. prom. no.3:48-49 J1-S '64.
(MIRA 17:11)

BELOZERTSEV, Aleksandr Grigor'yevich; SPIVAK, Nikolai Gavrilovich

[Efficiency of harvesting grain in separate stages] Ekono-
micheskaya effektivnost' razdel'noi uborki khlebov. Moskva,
Gos.izd-vo sel'khoz.lit-ry, 1958. 93 p. (MIRA 12:4)
(Grain--Harvesting)

15,8120

1962
S/191/62/000/008/003/013
3124/3138

AUTHORS: Kholodovskaya, R. S., Gosteva, O. K., Zabyrina, K. I.,
Spivak, N. M., Kirilovich, V. I.

TITLE: Development of electroinsulating impregnating masses
containing no solvents. Impregnating masses based on 5H.
(5N) epoxy resin

PERIODICAL: Plasticheskiye massy, no. 8, 1962, 14-16

TEXT: 5N resin was developed at the NIIPM and synthesized experimentally according to VPU-M-206-60 from epichlorohydrin and the condensation product of phenol and formaldehyde with HCl as catalyst. It contains up to 25-30% phenyl glycidine ether and chemically, it consists mainly of bis-glycidine ether of 4,4'-dioxy diphenyl methane with a small content of ethers of trinuclear compounds. The resins were intended for impregnating coils of electric motors working at 130-155°C. Experiments with polyalumophenyl siloxane as solidifier in amounts of 5% by weight showed that the resin set at 150°C in 10-15 min with a weight loss of less than 1%. Commercial polyester acrylates МГФ-9 (MGF-9) and the pilot plant
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Development of electroinsulating ...

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sample 7-1 developed by I. G. Sumin could be set with the same solidifier and possibly also without. Tests showed high resistance to heat and good dielectric properties (Table 2), low losses of weight (Table 3), and good binding strength (Table 4) of the impregnating masses developed. There are 2 figures and 4 tables. The English-language reference is: SPE Journal, No. 1, 38 (1959).

Table 2. Physicochemical and electrical properties of the copolymers*.
Legend: (A) mass, (B) viscosity according to VZ-4, sec, (C) drying time on copper or telephone paper at 150°C, min, (D) setting time in 1 mm thick layers at 150°C, min, (E) weight loss during setting (after 2 hrs at 150°C), %, (F) electric strength, kv/mm**, (G) at 20°C, (H) at 155°C, (J) after 24 hrs in water at 20°C, (K) volume resistivity, ohm·cm, (L) tanδ at 50 cps, (M) 5N + 5% solidifier, (N) 7-1 + 5N + 5% solidifier, (P) MGF-9 + 5N + 5% solidifier, (R) * I. N. Prozorova assisted in tests, (S) ** the dielectric properties were determined on disks 1 mm thick, hardened for 4 hrs at 150-160°C in aluminum molds.

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Table 3. Loss of weight in aging at 180°C (in %).

Legend: (A) mass, (B) aging time, hrs, (C) 5N + 5% solidifier,
(D) 7-1 + 5N + 5% solidifier, (E) MCF-9 + 5N + 5% solidifier, (F) note:
the loss of weight was determined on disks 0.8-1. mm thick.

Table 4. Change in binding strength of impregnating masses during aging
at 180°C.

Legend: (A) mass, (B) test temperature, °C, (C) binding strength* of the
mass, kg, (D) in the initial state, (E) after aging, days, (F) 5N + 5%
hardener, (G) 7-1 + 5N + 5% solidifier, (H) * the binding strength is
characterized by the force required to tear out the central part of a
wire from a bundle of six copper wires impregnated with the compound
investigated.

X

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Development of electroinsulating ...

(A) Состав	(B) Вязкость по ВЗ-4 секунды	(C) Продолжительность выстояния на чешуе или пленочной форме при 150°C, минуты	(D) Продолжительность отверждения в слое толщиной 1 мм при 150°C, минуты	(E) Потери веса при отверждении (за 2 часа при 150°C), %	Электрическая прочность, ка/мм ² (F)			Удельное объемное сопротивление, ом·см (K)			Тангенс угла ди- электрических по- тери при 50 гц (L)	
					(G) при 20°C	(H) при 155°C	после пребы- вания в воде в течение 24 часов при 20°C	(G) при 20°C	(H) при 155°C	после пребы- вания в воде в течение 24 часов при 20°C	(M) при 20°C	(N) после пребы- вания в воде в течение 24 часов при 20°C
5Н + 5% отвердителя (И)	60	10	15	1	32	13	31	6·10 ¹⁴	3·10 ⁹	5·10 ¹⁴	0,008	0,0095
7-1 + 5Н + 5% отвердителя (М)	78	10	15	1-2	27	25	26	1·10 ¹⁶	4·10 ¹⁰	5·10 ¹⁴	0,009	0,01
МГФ-9 + 5Н + 5% отвердителя (Р)	36	2 часа отлип	10	1	27	--	27	8·10 ¹²	7·10 ⁸	3·10 ¹²	0,05	0,158

(A) В испытаниях принимала участие И. Н. Прозорова.
(B) Диэлектрические свойства определяли в дисках толщиной 1 мм, отвержденных в алюминиевых формах при 150—160°C в течение четырех часов.

Table 2

Development of electroinsulating ...

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Table 3

(A) Состав	(B) Продолжительность, старения, часы					
	24	48	120	240	480	720
(C) 5Н + 5% отвердителя	6,7	8,4	10,2	12,4	14	15
(D) 7-1 + 5Н + 5% отвердителя	4,5	6,5	7	7,6	8,6	9,2
(E) МГФ-9 + 5Н + 5% отвердителя	5,4	9	13,5	17,5	22	24

(F) Примечание. Потери веса определяли на образцах в виде дисков толщиной 0,8—1 мм.

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Table 4

(A) Состав	(B) Температу- ра испыта- ний, °C	(C) Цементирующая способность* состава, кг				
		(D) в исходном состоянии	(E) после старения, сутки			
			10	20	40	90
(F) 5H+5% отверди- теля	20	36	36	34	17,5	10,4
	155	8	15	13,5	10,5	9,7
(G) 7-1+5H+5% отвердителя	20	33	19,6	9	12	7,8
	155	18,9	11	8	11	9,3

(H) * Цементирующая способность характеризуется усилием вырывания центрального отрезка проволоки из пучка в шесть медных проволок, пропитанного испытуемым составом.

Card 6/6

KHOLODOVSKAYA, R.S.; ZABYRINA, K.I.; SPIVAK, N.N.; Prinsipala uchastiye
SOBOLEVA, V.G.

Synthesis of terephthalic polyesters and their use as a base for
the production of impregnation lacquers for electric insulation
materials. Lakokras.mat. i ikh prim. no.3:12-16 '63. (MIRA 16:9)
(Terephthalic acid) (Protective coatings)
(Electric insulators and insulation)

AKHMEDOV, K.S.; SPIVAK, N.H.

Adsorption activity of activated carbon from lignin and cotton
stock. Izv. AN. Uz. SSR. Ser. khim. nauk no.4:67-71 '57.
(MIRA 11:9)

(Carbon, Activated)

SPIVAK, N.^V; SEMENOV, E.; MAYOROV, N.

For a militant party photo journalism. Sov. foto 20 no. 12:14-15
D '60. (MIRA 14:1)

(Moldavia—Photography, Journalistic)

SPIVAK, N.V., mayor

Two rams in one battle. Vest. protivovozd. obor. no.6:77-78
Je '61. (MIRA 14:8)
(World War, 1939-1945--Aerial operations)

SI 11/11/11
KIRSANOVA, M.K., kandidat tekhnicheskikh nauk; MONFRED, Yu. B., kandidat
tekhnicheskikh nauk; SPIVAK, N.Ya., kandidat tekhnicheskikh nauk.

Making large panels in the construction yard. Mekh.stroi.12 no.3:
3-8 Mr '55. (MLBA 8:4)
(Precast concrete construction)

MONFRED, Yu.B., kandidat tekhnicheskikh nauk; SPIVAK, N.Ya., kandidat tekhnicheskikh nauk; BURAS, M.L., inzhener.

Using three-dimensional reinforced concrete blocks in housing construction. *Biul.stroi.tekh.* 13 no.3:16-18 Mr '56.(MIRA 9:7)
(Concrete blocks)

124-58-6-7240

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 128 (USSR)

AUTHORS: Popov, N.A., Spivak, N.Ya.

TITLE: An Evaluation of the Strength, Specific Gravity, and Homogeneity of Light-weight Concretes Based on Porous Fillers (Otsenka prochnosti, ob'yemnogo vesa i odnorodnosti legkikh betonov na poristykh zapolnitelyakh)

PERIODICAL: V sb.: Legkiye betony na poristykh zapolnitelyakh. Moscow, Gos. izd-vo lit. po str-vu i arkhitekt., 1957, pp 190-205

ABSTRACT: Bibliographic entry

1. Concrete--Mechanical properties
2. Concrete--Physical properties
3. Concrete--Materials

Card 1/1

RUDEMAN, L.G., kand.tekhn.nauk; SPIVAK, N.Ya., red.; TARAYEVA, Ye.K.,
red.izd-va; BOROVTSEV, N.K., tekhn.red.

[Methods of technical and economic analysis of factory production
of precast reinforced concrete; Procedural aspects, calculations,
and analysis of indices] Metodika tekhniko-ekonomicheskogo
analiza zavodskogo proizvodstva sbornogo shelezobetona; metodi-
cheskie polozhenia, primery rascheta i analiza pokazatelei.
Nauchnoe soobshchenie. Moskva, Gos.izd-vo lit-ry po stroit.,
arkhit.i stroit.materialam, 1958. 80 p. (MIRA 11:12)
(Production control) (Precast reinforced concrete)

SPIVAK, Natan Yakovlevich, kand. tekhn. nauk; TEMKIN, L.Ye., inzh., nauchnyy red.; YUDINA, L.A., red. izd-va; EL'KINA, E.M., tekhn. red.

[Yards for the manufacture of reinforced concrete structures and parts] Poligony dlia izgotovleniia zhelezobetonnykh konstruksii i detalei. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1958. 147 p. (MIRA 11:7)

(Precast concrete)

SPIVAK, N.Ya., kand.tekhn.nauk; BADZHAGYAN, V.S., inzh.

Using expanded clay concrete in making wall panels. Bet. 1 zhel.-bet.
no.7:263-266 JI '58. (MIRA 11:7)
(Concrete blocks)

MOROZOV, N., kand.tekhn.nauk; SPIVAK, N., kand.tekhn.nauk

Lightweight large-panel wall elements. Stroitel' no.11:21-22
' 58. (MIRA 11:12)

(Lightweight concrete) (Walls)

KUZNETSOV, G., doktor tekhn.nauk, prof.; SPIVAK, N., kand.tekhn.nauk;
MOROZOV, N., kand.tekhn.nauk

Increasing the use of concretes made with expanded clay fillers
in housing construction. Na stroi.Mosk. no.1:8-13 Ja '59.
(MIRA 12:1)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury
SSSR (for Kuznetsov).
(Lightweight concrete)

SOV/97-59-3-2/15

AUTHORS: Soroker, V. I., Doctor of Technical Sciences, Spivak, N.Ya.,
Candidate of Technical Sciences and Sokolov, V. A., Engineer

TITLE: Casting of Hollow and Multiribbed Thin Reinforced Concrete
Panels in "Cassette" Forms

PERIODICAL: Beton i zhelezobeton, 1959, Nr 3, pp 100-103 (USSR)

ABSTRACT: "Cassette" forms have advantages over stand and conveyor systems of casting in that the product has a straight, smooth face ready for the application of paint; they allow more efficient curing, which results in acceleration of hardening of the concrete and in a much lower consumption of steel for reinforcement. Their disadvantage is the impracticability of using vibration for consolidation. For effective use to be made of these forms the problem of vibration as well as the casting of hollow and multiribbed thin panels will have to be solved. ASIA USSR, NIIZhelezobeton and Giprostroyindustriya have worked on the programme of consolidation necessary when the "cassette" form is used. Testing of methods of vibrating these forms

Card 1/4 is proceeding in various factories: for example, Nr 12

SOV/92-59.5-2/15

Casting of Hollow and Multiribbed Thin Reinforced Concrete Panels
in "Cassette" Forms

Glavpromstroymaterial, where "cassette" forms are being used in conjunction with a vibrating diapiragn (dividing wall) (Fig 1). Consolidation by vibration results in harder concrete, which allows a saving of cement, as shown in the table on p 100. The Scientific Research Institute for Technology and Organization of Production, and the Institute for Housing elaborated a "cassette" form for ribbed products, by consolidation of concrete mixes using the reinforcement as a means of vibration. Effective consolidation in such a case depends on the type of reinforcement. Unfortunately these methods do not allow the use of moderately stiff concrete mixes, or of forming slabs thinner than 4 cm. The authors of this article worked out technological details and methods of casting hollow and thin ribbed slabs in "cassette" forms (panels designed by G. F. Karnetsov, T.A. Antipov and N. V. Morozov of the Institute for Physics of Building and Enclosing Structures of the Academy of Building and Architecture

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Casting of Hollow and Multiribbed Thin Reinforced Concrete Panels
in "Cassette" Forms

of the USSR (Institut stroitel'noy fiziki i ograzhdayushchikh konstruktsiy ASIA SSSR). On the basis of experiments carried out by NIIZhelezobeton two methods of production were worked out using the "cassette" form vertically. The first method uses a set of inserts forming hollows on a vibrating cross-beam; the second uses "floating" vibrating caissons. The experimental hollow panel is illustrated in Fig 2. Figs 3 and 4 illustrate a set of hollow-forming inserts joined to a vibrating cross-beam. Stiff concrete mix with a slump test value of 2 cm can be used for casting concrete walls 12 - 20 mm thick. This is possible as a result of intensive internal vibration applied through the hollow-forming tubes. The distribution of amplitudes of vibration along the length of the hollow-forming tube is shown in Fig 5. Fig 6 shows jacks used for removal of tubes from the concrete. Dismantleable forms used in Factory No 12 proved to be satisfactory. The vibration of the hollow-forming tubes has an amplitude of at

Card 3/4 least 0.35 mm and frequency of 2800 vibrations per minute.

SOV/91-59-3-2/15

Casting of Hollow and Multiribbed Thin Reinforced Concrete Panels
in "Cassette" Forms

Ribbed panels are cast in the same form as hollow slabs, the metal partitions being replaced by a special rib-forming unit with vibrator. Fig 7 shows such a ribbed slab of 5 m x 1.4 m. The special inserts, which contain the vibrators, rest on rubber pads which do not interfere with the vibration, allowing a frequency of 2800 vibrations per minute and an amplitude of at least 0.35 mm. The technological process of vertical casting of these slabs is described in detail. Tests showed that during casting the dividing wall vibrates, due to resonance, with an amplitude 10-12% smaller than the amplitude of the insert, and this vibration is sufficient to consolidate concrete in adjoining areas. The method of casting multiribbed panels in vertical forms is shown in Fig 8. Use of this form and method of casting allows manufacture not only of thin flat units but also of ribbed and hollow wall units 12 mm thick. A high-quality surface is achieved which is not obtainable by other casting processes. There are 8 figures and 1 table.

Card 4/4

S/081/61/000/024/059/086
B149/B102

AUTHORS: Polinkovskaya, A. I., Petrikhina, G. A., Spivak, N. Ya.
TITLE: Hollow ceramic aggregate for light concretes
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 368, abstract
24K350 (Sb. tr. Resp. n.-i. in-ta mestnykh stroit. materialov
(RSFSR), no. 16, 1959, 76 - 89)

TEXT: A description is given of the manufacturing technology of the hollow ceramic aggregate for light concretes, based on clayey raw materials of I and II plasticity class. The study of the influence of aggregate shapes on concrete's volume weight showed that the minimum volume weight and maximum percentage of voids occur when the aggregate is in tetrahedron shape. With the use of hollow ceramic aggregate it is possible to produce heat-insulating concrete with large pores having volume weights of 515 - 760 kg/m³, and a strength of 26 kg/cm². [Abstracter's note: Complete translation.]

Card 1/1

MOROZOV, N.V., kand.tekhn.nauk; SPIYAK, N.Ya., kand.tekhn.nauk; KHAVIN,
B.N., red.izd-va; HUDAKOVA, N.I., tekhn.red.

[Instructions for designing and making keramzit-concrete panel
walls and ceilings] Ukazania po konstruirovaniu i proizvodstvu
panel'nykh ograzhdaiushchikh konstruktsii iz keramzitobetona.
Moskva, Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit.materialam,
1960. 79 p. (MIRA 13:6)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut stroi-
tel'noy fiziki i ograzhdaiushchikh konstruktsii.
(Concrete slabs) (Lightweight concrete)

Ja
SPIVAK, N., kand.tekhn.nauk, BAULIN, D., inzh.

Lightweight panel ceilings for apartment houses.
Zhil. stroi no.3:22-25 Mr '60. (MIRA 13:6)
(Ceilings)

KOZLOV, N. Ya., inzh. Geroy Sotsialisticheskogo Truda; ORENLIKHER, L. P.,
inzh.; SPIVAK, N. Ya., kand. tekhn. nauk

Producing keramzit-concrete single-layer panels by the method of
continuous vibration rolling. Bet. i zhel.-bet. no.8:371-372 Ag
'60. (MIRA 13:8)

(Concrete slabs) (Vibration)

KUZNETSOV, G.F., doktor tekhn. nauk, prof.; SHIVAK, N.Ya., kand. tekhn. nauk. Prinsipali uchastiye: BAULIN, D.K., inzh.; KREY TAN, V.G., inzh.; BUADZE, V.Sh., inzh.; KONTRIDZE, M.D., inzh.; USOV, A.L., inzh.; BAD-ZHAGYAN, V.S.; KLIMOVA, G.D., red. izd-va; ABRAMOVA, V.M., tekhn. red.

[Instructions for designing and manufacturing large lightweight slabs to go between stories of apartment houses and public buildings] Ukazaniia po proektirovaniu i izgotovleniu oblegchennykh krupnopanel'nykh mezhduetazhnykh perekrytii zhilykh i obshchestvennykh zdanii. Moskva, Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1961. 109 p.
(MIRA 14:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut stroitel'noy i ograždayushchikh konstruksiy. 2. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Kuznetsov).

(Precast concrete construction)

MOROZOV, N.V., kand.tekhn.nauk; USHKOV, F.V., kand.tekhn.nauk;
NIKOL'SKIY, V.N., kand.tekhn.nauk; SPIVAK, N.Ya., kand.
tekhn.nauk; TSIMBLER, V.G., inzh.; STRASHNYKH, V.P.,
red.izd-va; ABRAMOVA, V.M., tekhn.red.

[Instructions for designing, manufacturing, and using wall panels in the construction of apartment houses and public buildings] Ukazaniya po konstruirovaniyu, izgotovleniyu i primeneniyu stenovykh panelei v stroitel'stve zhilykh i obshchestvennykh zdaniy. Moskva, Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit.materialam, 1961. 149 p.

(MIRA 15:2)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut stroitel'noy fiziki i ograzhdayushchikh konstruktsiy.
(Precast concrete construction) (Walls)

SPIVAK, Natan Yakovlevich, kand. tekhn. nauk; CHERKINSKAYA, R.L., red. izd-
va; SHERSTNEVA, N.V., tekhn.red.

[Manufacture of large-panel enclosing elements of buildings from
keramzit concrete] Proizvodstvo krupnpanel'nykh ograzhdaiushchikh
konstruktsii zdaniy iz keramzitobetona. Moskva, Gos. izd-vo lit-ry
po stroit., arkhitekt. i stroit. materialam, 1961. 178 p. (MIRA 14:9)
(Precast concrete) (Concrete walls)

KUZNETSOV, G.F., prof.; SPIVAK, N.Ya., kand.tekhn.nauk

Keramzit concrete in large-panel housing construction. Bet. 1 zhel.-
bet. no.2:58-63 F '61. (MIRA 14:2)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR.
(for Kuznetsov).

(Concrete slabs) (Apartment houses)

SPIVAK, N., kand.tekhn.nauk; KREYTAN, V., inzh.

Mash-reinforced concrete parts in floors above ground level. Zhil.
stroit. no.5:30-31 My '61. (MIRA 14:6)
(Floors, Concrete)

POPOV, N.A., zaslužhenny deyatel' nauki i tekhniki RSFSR; SFIVAK, N.Ya.,
kand.tekhn.nauk

Ways to improve the quality of keramzit and keramzit concrete
articles. Stroi. met. 7 no.9:9-13 S '61. (MIRA 14:11)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR.
(for Popov).

(Lightweight concrete)

SPIVAK, Natan Yakovlevich, kand. tekhn. nauk; USHAMIRSKIY, Mark Konstantinovich; LINETSKIY, Yakov Isakovich; KHROMOVA, Zinaida Pavlovna, st. inzh.; FINKINSHTEYN, B.A., inzh.; red.;

[Large-panel apartment houses of keramzit concrete; practices of trust No.25 of the Kuybyshev Economic Council] Krupnopanel'nye zhilye doma iz keramzitobetona; opyt tresta no.25 kuybyshevskogo sovmarkhoza. Moskva, Gosstroizdat, 1962. 47 p. (MIRA 18:5)

1. Rukovoditel' laboratorii Tsentr. nauchno-issledovatel'skogo instituta industrial'nykh zhilykh i massovykh kul'turno-bytovykh zdaniy Akademii stroitel'stva i arkhitektury SSSR (for Spivak). 2. Glavnyy inzhener tresta No.25 Kuybyshevskogo sovmarkhoza (for Ushamirskiy). 3. Rukovoditel' laboratorii Nauchno-issledovatel'skogo instituta stroitel'noy fiziki i ogranichayushchikh konstruksiy Akademii stroitel'stva i arkhitektury SSSR (for Linetskiy).

SPIVAK, N. V. kand. tekhn. nauk; KREYTAN, V., inzh.

Panel foundations of a floating floor. Zhi. stroi. no. 6:14-17 '62.
(MIRA 15:7)

(Floors, Concrete)

SPIVAK, N.Ya., kand. tekhn. nauk; USHKOV, F.V., kand. tekhn. nauk;
~~UMYTRAKOV, P.N., kand. tekhn. nauk; TACHKOVA, N.A., inzh.~~

Heat conductivity of keramzit concrete. Bet. i zhel.-bet. 9
no.3:137-140 Mr '63. (MIRA 16:4)

(Keramzit)

(Lightweight concrete--Thermal properties)

SPIVAK, Natan Yakovlevich; USHKOV, F.V., kand. tekhn. nauk,
nauchn. red.; BORODINA, I.S., red.

[Large-panel enclosing structures of lightweight concrete
made with porous aggregates] Krupnopanel'nye ograzhdai-
shchie konstruksii iz legkikh betonov na poristykh zapol-
niteliakh. Moskva, Stroiizdat, 1964. 222 p.

(MIRA 17:5)

SPIVAK, N. Ya

Overall use of keramzit concrete in large-panel buildings. Zhil.
strof. no. 5:27-30 '65. (MIRA 18:7)

ZHERNOV, I.Ye., doktor geologo-mineralog. nauk; KALUGIN, V.N., inzh.;
SPIVAK, O.A., inzh.

Modeling the operations of linear strip mine drainage systems
by means of a Luk'ianov hydraulic integrator. Nauch. zap. Ukrniproskta
no.10:82-95 '63. (MIRA 17:6)

PHASE I BOOK EXPLOITATION

SOV/4980

Gorin, Boris Shmerelevich, and Petr Usherovich Spivak

Indikatory napravleniya (Direction Indicators) Moscow, Voenizdat
M-va obor. SSR, 1960. 180 p. No. of copies printed not given.
(Series: Radiolokatsionnaya tekhnika)

Ed.: A. P. Karus', Engineer, Lieutenant Colonel; Tech. Ed.:
V. Ye. Volkova.

PURPOSE: This booklet is intended for military personnel engaged
in radar operations. It can also be used by the general reader
wishing to acquire a detailed knowledge of the operation of in-
dividual radar units and components.

COVERAGE: The authors describe methods of determining target an-
gular coordinates by means of radar stations, give the concept
of angular coordinate resolution of a radar station, briefly
analyze physical processes occurring in the basic units of di-
rection indicators, and discuss basic principles of automatic

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Direction Indicators

SOV/4980

angular direction tracking of a target. No personalities are mentioned. There are no references.

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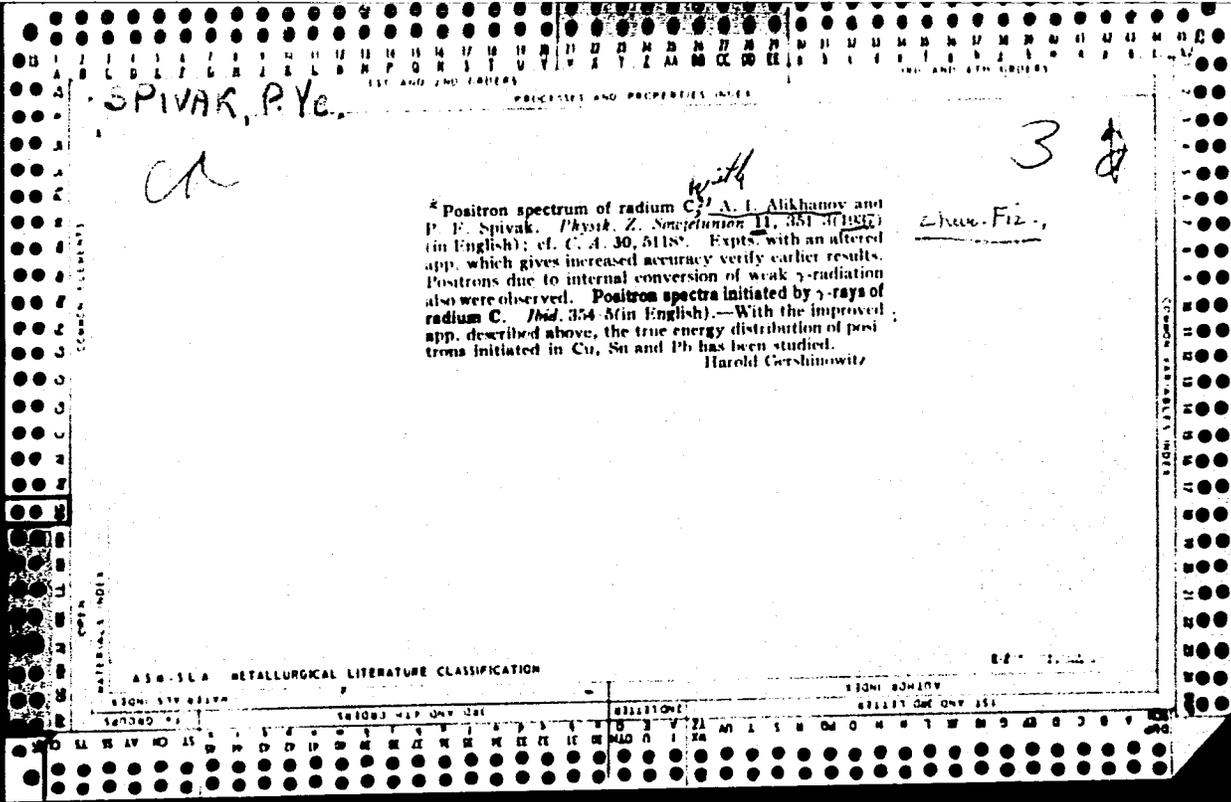
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Card 2/4

SPIVAK, P. YA.

20082 SPIVAK, P. YA. Vsesoyuznaya gipertonicheskaya konperentsiya na plenumе
gravnykh respublikanskikh terapevtov. /Moskva. Okt. 1948 g. / Vracheb. delo, 1949,
No. 6, stb. 561-68, 3(obg.)

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.



117 AND 118 ORDERS PROCESSING 117 AND 118 ORDERS

SPIVAK, P.Ye. 3C 2-1

"Positron spectra initiated by γ -rays of rad-
 ium-226. A. I. ALKHANOV and P. K. SETVAN (Physi-
 cal. Z. Sovetskoy, 1957, 11, 354-355). The
 energy distribution of positrons formed in Pb, Sn,
 and Cu foil by irradiation with γ -rays is measured.
 F. J. L.

ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION

117 AND 118 ORDERS 117 AND 118 ORDERS

117 AND 118 ORDERS 117 AND 118 ORDERS

SPIVAK, P. Ye.

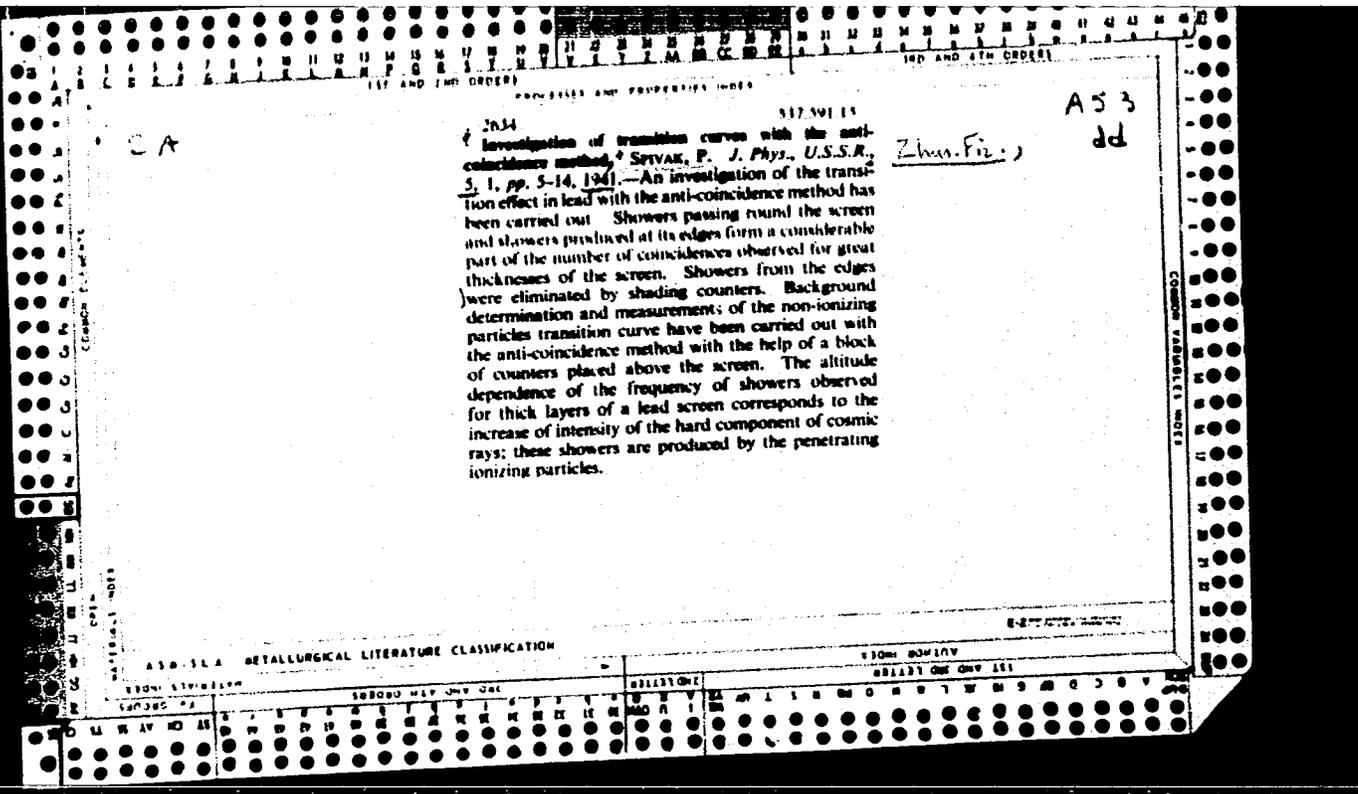
65.64
"Angles Between the Components of Pairs," *Cart* A.I. Alikhanov, B. S. Dzholegov, and
P. Ye. Spivak. Bull. Acad. Sci., URSS, Classe Sci Math Nat., Ser. Phys. 1938,
pp 47-55 (in English 56). - See C.A. 32, 8261. N.M.B. Iz. Ak. Nauk SSSR, Ser. Fiz.,

SPIVAK, P. Ye.

"Angles Between the Components of a Pair," A. Alikhanyan, H. Dzhelepov, and P. Ye. Spivak. Comptes Rendus (Doklady) de L'Acad. des Sciences, USSR, 19, 5, pp. 375-80, 1938. In English.

The pairs from Po, electrolytically deposited on a foil of Al-Be alloy were registered in two Geiger-Muller counters at six different angles. A comparison with the theory of Wilmbeck and Rose suggests the results agree more closely with those for quadrupole than dipole transition, but this is not conclusive. A pair created by γ rays (Po and Be) in Pb were similarly investigated, but the comparison with theory presents difficulties.

H.G.C.



SHIVAK, I. Ye., GUREVICH, I. I., POMERANCHUK, I. Ya., YERZOLEMSKIY, V. G., and
STOLYAROV, G. A.

"Theory of Resonance Absorption in Heterogenous Systems".

Report appearing in 1st Volume of "Session of the Academy of Sciences USSR on the Peaceful use of Atomic Energy, 1-5 July 1955", Publishing House of Academy of Sciences USSR, 1955.

Leningrad Physicotechnical Institute, Academy of Sciences USSR.

SO: Sun 728, 28 Nov 1955

SPIVAK, P. Ye., SOSNOVSKIY, A. N., PROKOP'YEV, A. Y. and SOKOLOV, V. S.

"Investigation of Neutron Beta Decay," a paper presented at the ¹Aoms for
Peace Conference, Geneva, Switzerland, 1955

SPIVAK, P.Ye.; YEROZOLIMSKIY, B.G.; DOROFYEV, G.A.; LAVRENCHIK, V.I.

[Measurement of resonance absorption integrals for various substances and of the multiplication coefficient (effective number of secondary neutrons) of resonance neutrons for fissionable isotopes] Izmereniia rezonansnykh integralov poglashcheniia dlia razlichnykh veshchestv i koeffitsienta razmnozheniia (effektivnogo chisla vterichnykh neutronov) na rezonansnykh neutronakh dlia deliashehikhsia izotopov. Moskva, 1955. 13 p. (MIRA 14:7)

(Neutrons)

(Isotopes)

(Nuclear fission)

SPIVAK, P.Ye.; YEROZOLIMSKIY, B.G.

[Measuring the coefficient of neutron multiplication (effective number of secondary neutrons) for fissionable uranium and plutonium isotopes, using thermal neutrons for fission] Izmerenie koeffitsienta razmnozhenia neitronov (effektivnogo chisla vtorichnykh neitronov) dlia deliashchikhsia izotopov urana i plutonia pri delenii na teplovykh neitronakh. Moskva, 1955. 16 p.
(MIRA 14:7)

(Neutrons) (Uranium isotopes) (Plutonium isotopes)
(Nuclear fission)

SPIVAK, P.Ye.; SOSNOVSKIY, A.N.; PROKOF'YEV, A.Yu.; SOKOLOV, V.S.

[Studying the beta-decay of a neutron] Issledovanie beta-
raspada neitrona. Moskva, 1955. 20 p. (MIRA 14:7)
(Neutrons) (Nuclear counters)

Spivak, P. E.

100% - Rmg.

MW
Sci

7

Measurements of the average number of neutrons emitted in the fission of several uranium and plutonium isotopes. I. Measurement of the average number of neutrons released upon fission of uranium-233, uranium-235, plutonium-239, and plutonium-241. V. I. Kalashnikova, V. P. Zakharova, V. I. Lebedev, L. A. Mikaelyan, and P. E. Spivak. Conf. Acad. Sci. U.S.S.R. on Peaceful Uses of Atomic Energy, Session Div. Phys. Math. Sci. 1955, 123-6 (Pub. 1956) (Engl. translation). II. Number of neutrons generated at the fission of heavy nuclei as a function of the excitation energy of the fissionable nucleus. V. I. Kalashnikova, V. P. Zakharova, A. V. Krasnushkin, V. I. Lebedev, and M. I. Pevzner. Ibid. 127-30. III. Estimation of the average number of neutrons which are released at the fission of various isotopes of uranium and plutonium. V. I. Kalashnikova, V. P. Zakharova, V. I. Lebedev, and P. E. Spivak. Ibid. 131-2.—See C.A. 50, 3113e. B. M. R.

Rmg
Sci

Category : USSR/Nuclear Physics - Nuclear Reactions

C-5

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 557

Author : Spivak, P.Ye., Mrozolimskiy, B.G., Dorofeyev, G.A., Lavrenchik, V.N.,
Kutikov, I.Ya., and Dobrynin, Yu. P.

Title : Determination of the Average Number of Neutrons, ν_{eff} , Emitted by a
Single Capture Act for the Isotopes U^{233} , U^{235} , and Pu^{239} in the
Ultrathermal Region of Neutron Energies.

Orig Pub : Atom. energiya, 1956, No 3, 13-20

Abstract : The variation of ν_{eff} was measured for the isotopes U^{233} , U^{235} and Pu^{239}
in the ultrathermal region of neutron energy. ν_{eff} of U^{233} remains un-
changed all the way up to energies on the order of 100 ev. ν_{eff} of Pu^{239}
diminishes by 12% during the transition from the thermal spectrum to the
of 0.15 -- 0.5 ev energy spectrum, and then remains unchanged. ν_{eff} of
 U^{235} remains unchanged upon transition from the thermal spectrum to the
0.15 -- 0.5 ev energy spectrum, and then drops by 18% upon transition
to the energy spectrum 8 -- 130 ev.

Card : 1/1

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1955
AUTHOR KALASNIKOVA, V.I., LEBEDEV, V.I., SPIVAK, P.E.
TITLE Relative Measurements of the Average Number of Neutrons which are
Emitted on the Occasion of the Fission of U^{233} , U^{235} and Pu^{239} by
Thermal Neutrons and by Neutrons of the Fission Spectrum.
PERIODICAL Atomnaja Energija, 2, fasc.1, 18-21 (1957)
Issued: 3 / 1957

The energies of most neutrons are between 10^5 and $(5-6) \cdot 10^6$ eV, and the average energy amounts to about 2 MeV. Although the results of such experiments are not directly suited for the computation of fission processes, they are nevertheless interesting both from the general point of view and from that of the development of the chain reaction.

Experimental method: The increase of ν (= average number of fast neutrons corresponding to one fission act) with an increase of the neutrons causing the fission was investigated by the method of the simultaneous counting of the number of fission acts in the material to be investigated and of the number of coincidences of the fragments with the fission neutrons. The reactor of the RFT (?) served as a neutron source.

Measurements and measuring results: For the purpose of determining the ratio (ν / ν_T) the values of $\nu \omega \eta$ for all three isotopes were one after the other measured by means of a converter in the depth and by means of a boron filter at the output from the channel, and the values of $\nu_T \omega \eta$ were measured in

Spivak, P. Ye

AUTHOR YEROZOLIMSKIY B.G., SPIVAK P.E. PA - 2719
TITLE Calibrating of Neutron Sources in Graphite Prisms of a Reactor.
(Etalirovaniye neytronnykh istochnikov v grafitovoy prizme reaktora.- Russian)
PERIODICAL Atomnaia Energiia 1957, Vol 2, Nr 4, pp 327 - 333 (USSR).
Received: 5/1957 Reviewed: 6/1957
ABSTRACT The present work describes a method for the calibration of sources by comparing the emission rate of these sources with the power of the neutron efflux caused by an absorber located in the neutron field. This comparison was carried out by means of a neutron indicator fitted in a graphite prism. In the here discussed tests this graphite prism was fitted onto the surface of the reactor.
At first the theory of the method is discussed. The problem of the absolute measurement of the emission rate is reduced to the absolute measurement of the emission rate of the efflux of neutrons caused by the absorber. As an absorber a set of gold plates was used here in which each captured neutron causes the reaction. $Au^{197} (n, \gamma) Au^{198}$ with a further decay of Au^{198} . The necessary formulae for the computation of the real radiation emission rate of the source are given and discussed.
Description of the Measuring arrangement: At first the block

CARD 1/2

PA - 2719

Calibrating of Neutron Sources in Graphite Prisms of a Reactor.

scheme of the measuring device is discussed by means of a drawing. The prism composed of graphite bricks is located in an unprotected part of the reactor surface. The radiation sources to be calibrated and the absorber are introduced through a channel into the prism.

Next, the selection of the dimensions of the prism and the sensitivity of the chamber are discussed.

The flux of the indicator chamber was measured by means of an electrometric amplifier with low negative coupling at both clamps, which warrants a high linearity of the amplification and a good stability of the zero value.

In conclusion the experimental determination of the coefficients k and the measurements of the efflux rate are discussed. The latter measurement is reduced to the measuring of the activity of the gold sample. Here the gold sample is to be irradiated under the same conditions, under which also the efficacy resulting from the neutron efflux was measured. The results of calibration found in this way, are numerically given. (2 illustrations and 1 table.)

ASSOCIATION: not given.

PRESENTED BY: -

SUBMITTED: 6.4. 1956.

AVAILABLE: Library of Congress.

CARD 2/2

SPIVAK, P.Ye

19 19
 Measurements of η for uranium-233, uranium-235, and plutonium-239 with epithermal neutrons. P. B. Solvak, B. G. Trozolimskii, G. A. Dorofeev, V. M. Lavrenko, I. E. Kutikov, and Yu. P. Dobrynin. *Atomic Energy (U.S.S.R.)* (English translation) 1, No. 3 (Pub. in *J. Nuclear Energy* 4, 70-8(1957)).—For U^{233} , η remains const. to 100 e.v. The value for Pu^{239} falls by 12% in passing from a thermal spectrum to a spectrum bounded by 0.15 and 0.5 e.v., but remains const. thereafter. For U^{235} η is the same for the thermal spectrum and that between 0.15 and 0.5 e.v., but falls by 18% on passing to the spectrum from 8 to 130 e.v.

500

6

7

pmk
7/2

SPIVAK P. Ye

19 19

Measurements of η for uranium-233, uranium-235, and plutonium-239 with neutrons in the energy range 30 to 600 e.kv. P. E. Spivak, B. G. Prozilimskii, G. A. Dorofeev, V. N. Lavrenko, E. Kutikov, and Yu. P. Dobryvnu. Atomic Energy (U.S.S.R.) (English translation) 1, No. 3 (Pub. in J. Nuclear Energy 4, 79-85(1957)); cf. preceding abstr. η increases substantially with neutron energy in this region.

James I. Lauer

Rec 150

RML

6 10 1- Rank

21(8)
AUTHORS: Sosnovskiy, A. N. (Deceased), Spivak, P. Ye., Prokof'yev, Yu. A.,
Kutikov, I. Ye., Dobrynin, Yu. P. (Deceased)

SOV/56-35-4-49/52

TITLE: Measurement of the Half-Life of the Neutron (Izmereniye
perioda poluraspada neytrona)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 4, pp 1059-1061 (USSR)

ABSTRACT: The authors of the present paper determined the half-life
of the neutron much more accurately than in previous papers.
The present paper was also inspired by the great interest
caused by the form of β -interaction. The longitudinal sec-
tion through the measuring apparatus used is shown by a
schematical drawing. A well-collimated neutron beam from the
reactor $P\Phi T$ passed through an evacuated chamber. The
protons produced by neutron decay were focused on to the window
of a proportionality counter. A formula for calculating the
half-life T is given. The authors found the value
 $T = (11.7 \pm 0.3)$ minutes for the half-life of the neutron
and this furnishes a neutron ft-value of 1180 ± 35 . There
are 1 figure and 4 references, 1 of which is Soviet.

Card 1/2

21(1)
AUTHORS: Sosnovskiy, A. N. (Deceased), Spivak, P. Ye., Prokof'yev, Yu. A.,
Kutikov, I. Ye., Dobrynin, Yu. P. (Deceased) SOV/56-36-4-7/70

TITLE: Measurement of the Half-life of the Neutron (Izmereniye perioda
poluraspada neytrona)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
Vol 36, Nr 4, pp 1012-1018 (USSR)

ABSTRACT: In the introduction the methods and results of work recently
carried out in the USA and in the USSR are discussed. Estimates
made of neutron half-life amounted to 10-30 min (Ref 1),
9-25 min (Ref 2), and 8-15 min (Spivak, Sosnovskiy, Ref 4);
more detailed data are given by reference 3: 12.8 ± 2.5 min
and 12.0 ± 1.5 min (Ref 4). For the half-life of the neutron it
holds that (1): $T = kJ \ln 2/N_p$; J is the neutron density inte-
gral, k depends only on the geometry of the experiment and on
neutron distribution in the beam. The neutron beam used was
obtained from the RFT-reactor; Figure 1 gives a schematical
view of the experimental device. Chapter 2 of the paper gives
a description of this device and of the experimental principle.
Chapter 3 deals with neutron density measurements in the beam.

Card 1/3

SOV/36-36-4-7/70

Measurement of the Half-life of the Neutron

Neutron density was determined by the activation of sodium- and gold targets. The cross section for sodium follows from the $1/v$ -law; it holds that $\sigma_{\text{absorp}} = (98 \pm 1.5) \cdot 10^{-24} \text{cm}^2$ at

$E = 0.025 \text{ ev}$. In the case of gold a deviation from the $1/v$ -law was found; it has a cross section of $0.5 \cdot 10^{-24} \text{cm}^2$. For density

$\rho = 2.17 \cdot 10^3 \text{ neutrons/cm}^3 \pm 1.8\%$ is obtained. For the density

integral it follows that $J = (7.68 \pm 0.15) \cdot 10^4 \text{ neutrons/cm}$.

In the next chapter the authors investigate the problems of the recording of decay protons, i.e. of determining N_p from

formula (1). If the counter records n_p protons, it holds that

$n_p = \alpha N_p$; α was determined as amounting to 0.843 ± 0.006 . From

25 series of measurements the following was obtained after extrapolation and after consideration of α : $N_p = 35.6 \pm 0.54 \text{ protons/min}$.

Chapter 5 deals with the determination of k from formula (1).

Calculations by means of a computer resulted in a value of $k = 7.87 \cdot 10^{-3} \text{ cm}$; if density distribution is taken into account

Card 2/3

SOV/56-36-4-7/70

Measurement of the Half-life of the Neutron

$7.84 \cdot 10^{-3}$ cm is found. The values thus obtained for J , N_p , and k are then inserted into (1) and give a neutron half-life of $T = (11.7 \pm 0.3)$ min. Herefrom the reduced life of the neutron is found to amount to $fT = 1180 \pm 40$ (f was calculated according to the table by Dzhelepov and Zyryanova (Ref 8)). The authors finally thank Academician I. V. Kurchatov for his interest in the work, and they also express their gratitude to the mathematical team M. R. Shura-Bura, Ye. S. Kuznetsov, I. G. Krutikova, V. N. Toroptseva and O. B. Moskalev, and, finally, also to the RFT reactor team. There are 3 figures, 1 table, and 11 references, 2 of which are Soviet.

SUBMITTED: September 29, 1958

Card 3/3

MIKAELYAN, L.A.; SPIVAK, P.Ye.

Measuring the degree of longitudinal polarization of α -electrons.
Zhur.eksp.i teor.fiz. 37 no.4:1168-1170 0 '59.
(MIRA 13:5)

(Electrons)

S/056/60/039/003/006/045
B004/B060

AUTHORS: Spivak, P. Ye., Mikaelyan, L. A.

TITLE: Longitudinal Polarization of Beta Electrons ¹

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 3 (9), pp. 574-583

TEXT: The authors wanted to find an answer, as accurate as possible, to the question as to whether the polarization of electrons is different with the beta decay of different nuclei. They applied the method of the Mott scattering: by means of a crossed electric and magnetic field, the longitudinal polarization was turned into a transversal polarization, and the latter was measured on the basis of scattering asymmetry. The scheme of the apparatus is shown in Fig. 1. The path followed by the electrons after a deflection through 90° by means of the magnetic field, the passage through the collimator and the crossed fields, hitting on the scatterer, and recording by counters are described. The authors thoroughly deal with the calibration of the

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Longitudinal Polarization of Beta Electrons

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B004/B060

crossed field system, the production of beta sources (P^{32} , In^{114} , Au^{198} , Lu^{177} , Sm^{153} , Ho^{166}), the examination of electron spectra for conversion lines caused by impurities (Fig. 2), the compensation of the efficiency of counters, their low background of 60 - 70 coincidences/hour, the little spread of the results of measurement due to strong collimation of the beam, the depolarization of electrons in the sources, and the correction of electrons scattered on the walls of the apparatus. The results of relative polarization (referred to Sm^{153}) are given in Table 1. Absolute measurements were made with Sm^{153} only. The asymmetry of the apparatus was determined by means of gold, silver, and aluminum scatterers (Table 2, Fig. 3). Table 3 supplies the absolute values of longitudinal polarization which were calculated from the relative values taking account of the absolute values obtained for Sm^{153} . Electrons were differently polarized in the isotopes investigated. There is a difference of 10% between P^{32} and In^{114} . The values obtained for P^{32} and Au^{198} are in agreement with data from Refs. 12,13. The authors do not consider the absolute values to be final. The accuracy of the theoretical calculation of the S-function, which indicates the

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Longitudinal Polarization of Beta Electrons

S/056/60/039/003/006/045
B004/B060

relationship between the asymmetry of scattering and the polarization, needs to be checked. The authors thank V. I. Levir and others for preparing P^{32} , and the co-workers of the physical and technical research reactor for having carried out the irradiation. There are 3 figures, 3 tables, and 20 references: 6 Soviet, 12 US, 1 British, and 3 Italian.

SUBMITTED: April 20, 1960

Card 3/3

86928

S/056/60/039/005/047/051
B006/B077

29.6600

AUTHORS: Sprink, P. Ye., Mikaelyan, L. A., Kutikov, I. Ye.,
Mikhailov, V. P.

TITLE: Asymmetry in Double Mott Scattering and Absolute Values of
the Longitudinal Polarization of β -Electrons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 5(11), pp. 1479 - 1481

TEXT: The present "Letter to the Editor" continues two previous works
where the authors reported about the relative measurements of longitudi-
nal polarization of the β -electrons emitted in the decay of P^{32} , Sm^{153} ,
 Lu^{177} , Ho^{166} , Ir^{192} , and Au^{198} . The amount of polarization differed up
to 12%. This shows that the polarization deviates from the predicted
value (v/c); the amount of these deviations was determined from absolute
measurements of the electron polarization from Sm^{153} . The degree of
polarization is given by $\langle \sigma \rangle = (1+J_1/J_R)/(1-J_1/J_R)S$, where J_1 and J_R are

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Asymmetry in Double Mott Scattering and
Absolute Values of the Longitudinal
Polarization of p -Electrons

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S/056/60/039/005/047/051
B006/B077

the left and right hand scattering intensities and S a function of angle, energy, and charge, characterizing the asymmetry. In order to determine S , the authors investigated the double scattering of unpolarized electrons from gold. The results of these experiments with a scattering angle of 120° and energies of 245 and 290 keV are reported here, the measurements were obtained in the ranges of 50-250 keV and $90-150^\circ$. A short description of the experimental setup is given which is in line with the known ones. In order to eliminate the asymmetry caused through the device, the first gold scatterer was replaced by an aluminum scatterer and S_{Al}/S_{Au} was determined. Four first and four second scatterers were used which had a thickness between 70 and $300 \mu\text{g}/\text{cm}^2$; statistical accuracy of S -measurements was determined to be $\pm 3\%$, background was not greater than 5% . The counting rate was 500-1500 pulses/min. Corrections for scattering from the walls ($0.4 \pm 0.2\%$), and from the scatterer backing ($2-4\%$) as well as the finiteness of the angle of observation (0.5%) were taken into account. The following values were obtained:

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Asymmetry in Double-Mott Scattering and
Absolute Values of the Longitudinal
Polarization of β -Electrons

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Electron energy (keV)	S^2	S	S/S_T
245	0.168 \pm 4%	0.411 \pm 2%	0.960 \pm 2%
290	0.161 \pm 4%	0.401 \pm 2%	0.941 \pm 2%

S/S_T denotes the ratio of the value determined experimentally and that obtained from Sherman's tables. The depolarization of the electrons passing from the source to the scatterer were examined also, at electron energies of 170 keV. It was found that the asymmetry can decrease by (2 \pm 2)% due to this depolarization. The following absolute values were obtained for 300-keV electrons:

	P ³²	Sm ¹⁵³	Lu ¹⁷⁷	Ho ¹⁶⁶	In ¹¹⁴	Au ¹⁹⁸
polarization $\langle c \rangle / (v/c)$	1.02	0.97	0.92	0.91	0.93	0.94
error of relative measurements in %	1.5	1.5	1.5	1.5	2.5	2.0

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Asymmetry in Double Mott Scattering and
Absolute Values of the Longitudinal
Polarization of β -Electrons

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B006/B077

The error of absolute measurements amounted to 3-3% and the deviations from v/c were 8-9%. There are 1 figure, 1 table, and 3 references: 2 Soviet and 1 US.

SUBMITTED: August 24, 1960

Card 4/4

SPIVAK, P.Ye.; MIKAELYAN, L.A.; KUTIKOV, I.Ye.; APALIN, V.F.; LUKASHEVICH,
I.I.; SMIRNOV, G.V.

Asymmetry of double Mott scattering of electrons in the energy
range between 45 and 245 Kev. Zhur.eksp.i teor.fiz. 41 no.4:
1064-1068 0 '61. (MIRA 14:10)

(Electrons--Scattering)

PROKOF'YEV, Yu.A.; SPIVAK, P.Ye.

Decay of the neutron. Atom. energ. 12 no.4:278 Ap '62.
(MIRA 15:3)

(Neutrons---Decay)

L 60938-65 EWT(m)/T/EWA(m)-2

ACCESSION NR: AP5014318

UR/0367/65/001/005/0853/0855

AUTHORS: Mikaelyan, L. A.; Spivak, P. Ye.; Tsinoyev, V. G.

23
14
B

TITLE: Suggested experiments on low energy antineutrino physics

SOURCE: Yadernaya fizika, v. 1, no. 5, 1965, 853-855

TOPIC TAGS: neutrino, antineutrino, pulsed reactor, neutrino electron scattering, neutrino electromagnetic property, elementary particle interaction

ABSTRACT: To check on the possibility of experimentally observing interactions of neutrinos or antineutrinos with elementary particles, the authors propose a program of experiments for the observation of the scattering of low-energy antineutrinos by electrons. A pulsed nuclear reactor is proposed as the source of antineutrinos. This reactor, operating in pulses lasting approximately 1 second, with a pulse repetition frequency about 10 pulses daily, and with an average reactor power of 5×10^4 -- 10^5 kW, would yield a flux of (1.5 -- 3)

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L 60938-65

ACCESSION NR: AP5014318

9

$\times 10^{15}$ antineutrinos/cm²sec. Calculations show that when such anti-neutrinos are scattered by electrons they can produce recoil electrons with energy larger than 2 MeV, the cross section for this process being 13×10^{-45} cm², which can be effectively detected with an NaI detector. The reactor is also capable of producing neutrinos of constant energy (~ 1.7 MeV) and of sufficient intensity to permit research on neutrinos which arrive on earth from the sun. Other possible studies of electromagnetic properties of antineutrinos and of the inverse β decay on protons and other nuclei are also discussed. 'The authors thank S. M. Feynberg, Ya. V. Shevelev, B. M. Pontecorvo, V. P. Dzhelepov, L. B. Okun', I. S. Shapiro, I. Ya. Pomeranchuk and Yu. V. Gaponov for numerous discussions, and A. P. Aleksandrov for a discussion and interest in the work.' Orig. art. has: 2 formulas

ASSOCIATION: None

SUBMITTED: 13Nov64

ENCL: 00

SUB CODE: NP

NR REF SOV: 000

OTHER: 005

dm
Card 2/2

SPIVAK, R.I.; DOKHOVNER, S.Ye.; SHUL'TS, S.S.; GERSHGORDNA, F.Z.; USHKAN, Ye.M.

Treatment of ascariasis with piperazine adipinate and piperazine hexahydrate in children with rheumatic fever. *Pediatria* 36 no.11: 71-72 N '58. (MIRA 12:8)

1. Iz Respublikanskogo detskogo revmaticheskogo sanatoriya "Avoty" na Rizhskom vzmor'ye (glavnyy vrach M.K. Kuchkova, nauchnyy rukovoditel'-prof. A.N. Ivanov).

(ASCARIDS AND ASCARIASIS) (PIPERAZINE)
(RHEUMATIC FEVER)

KOGAN, O.G.; CHUREKOVA, N.I.; SPIVAK, R.M.

Analysis of diagnostic errors in diseases of the lumbosacral part of
the peripheral nervous system. Zdrav. Kazakh. 21 no.6:34-38 '61.
(MIRA 15:2)

1. Iz kafedry nervnykh bolezney (zav. - dotsent R.G.Mandryko)
Karagandinskogo meditsinskogo instituta.
(NERVOUS SYSTEM, PERIPHERAL DISEASES)

PROCESSES AND PROPERTIES INDEX

10

Basal metabolism in hypertonia. E. Ya. Reznitskaya and R. Ya. Spivak. *Klin. Med. (U. S. S. R.)* 10, 1410-20 (1938); *Chem. Zvezd.* 1930, 1, 3403.—No relation could be established between the height of the blood pressure and the basal metabolic rate from studies on 620 patients with hypertonia of varying etiology. M. G. Moore

METALLURGICAL LITERATURE CLASSIFICATION

ALUMINUM INDEX

MATERIALS INDEX

COMMON VARIABLES INDEX

SPIVAK, R. YA.

Spivak, R. Ya. "Certain data on experimental (Humoral) hypertonia," Report 2. Vracheb. delo, 1949, No. 3, paragraphs 207-10.

SO: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 18, 1949).

SPIVAK, Revekka Yakovlevna

Academic degree of Doctor of Medical Sciences, based on her defense, 23 June 1954, in the Council of the Khar'kov State Med Inst of her dissertation entitled: "Some experimental and clinical facts about the pathogenesis of hypertonicity and hypertonic disease".

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 9, 16 April 55, Byulleten' MVO SSSR, No. 14, Jul 56, Moscow, pp 4-22, Uncl. JPRS/NY-429

SPIVAK, R.Ya., doktor meditsinskikh nauk

Pathogenesis of hypertension. Vrach, delo no. 11: 1177-1180 N '56.
(MLBA 10:3)

1. Fiziologicheskij otdel (nauchnyy rukovoditel' - chlen-korrespondent AN USSR, professor Ye.K.Prikhod'kova) Ukrainского instituta eksperimental'noy endokrinologii i Gospital'naya terapevticheskaya klinika (zaveduyushchiy - zasluzhennyy deyatel' nauki, professor V.M.Kogan-Yasnny) Kar'kovskogo meditsinskogo instituta.
(HYPERTENSION)

53300

29436

S/081/61/000/017/105/166
B101/B102

AUTHORS: Dalin, M. A., Spivak, R. Ye., Burmistrov, Ye. F.
TITLE: Production of para-tertiary butyl phenol on the basis of
the commercial C₄ fraction of butane dehydrogenation
products
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1961, 361, abstract
17745 (Azerb. khim. zh., no. 6, 1960, 21 - 25)

TEXT: The possibility of achieving a complete extraction of isobutylene (I) (at a content of 3 - 4%) from the C₄ fraction of the dehydrogenation process by means of phenol (II) is shown. Qualitative p-tert-butyl phenol is thus obtained, and part of highly concentrated I is separated. The optimum conditions for the alkylation of II with the C₄ fraction were found to be a temperature of 100°C, 1% by weight of 100% H₂SO₄ as a catalyst, a velocity of the fraction vapor of 0.25 m/sec in the free column cross section, and saturation of the alkylate 1 mole of I per mole of II. A

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S/081/61/000/017/105/166
E101/B102

Production of para-tertiary...

partial dealkylation takes place if temperature is increased to 205°C, and 98 - 99.5% of I is separated. Divinyl, which is present in the fraction in an amount of 3 - 4%, is not affected if the process takes place under optimum conditions. [Abstracter's note: Complete translation.] ↗

Card 2/2

S/064/61/000/003/002/009
B101/B203

AUTHORS: Dalin, M. A., Spivak, R. Ye., Burmistrov, Ye. F.,
Vyaz'mitina, L. M.

TITLE: Joint production of isoamylenes and para-tert-amyl phenol

PERIODICAL: Khimicheskaya promyshlennost', no. 3, 1961, 21-24

TEXT: Isoamylenes are used as raw material for the production of isoprene. They are profusely available in the cracking products of petroleum. Their fractional separation is, however, made difficult by the adjacent boiling points of the individual hydrocarbons with 5 C atoms. Therefore, the authors studied the selective production of isoamylenes by alkylation of phenol and subsequent decomposition of the phenol amyl ethers into phenol and olefins. They used as initial substances: 1) pentane amylene fraction with 15-20% isoamylenes, 30-35% n-amylene; 2) phenol with the melting point at 41°C. 95.6% sulfuric acid was used as a catalyst. The first experiments were made with an electrically heated glass column. Phenol was filled into the column, and the required H₂SO₄ amount was added under stirring. After heating, the vapor of the pentane amylene fraction
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Joint production of isoamylenes ...

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B101/B203

entered the column from below through a Schott filter. The reaction products were condensed. The dealkylation was performed in a rectifying column with filling from short glass tubes. Liberation of isoamylenes started at 160°C, and was finished at 205°C. However, p-tert-amyl phenol also formed as a by-product. Resin was left behind as a distillation residue. The initial fraction and the resulting isoamylenes were analyzed in a nitrogen flow by absorption in 64% H₂SO₄ (isoamylenes) and 84% H₂SO₄ (n-amylene) in a ДТН (VTI) gas analyzer. The authors studied the effect of the temperature at which the phenol was alkylated on the yield in isoamylenes (Fig. 3). At temperatures above 80°C, the amount of amyl phenol increased. 1% of sulfuric acid referred to phenol was found to be the optimum admixture. Larger admixtures increased the amount of resin residue. Fig. 6 shows the yield of isoamylenes as a function of the molar ratio isoamylenes : phenol. If 1:1 is exceeded, the formation of amyl phenol increases (Fig. 7). The optimum established was a pressure of 2 atm at which the reaction products were better condensed than at atmospheric pressure. Still higher pressure may lead to condensation of the initial fraction in the alkylation vessel. As the laboratory apparatus

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Joint production of isoamylenes ...

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only permitted a low vapor velocity, tests were made with the pilot apparatus shown in Fig. 8 which permitted a vapor velocity of up to 1 m/sec with strongly reduced resinification. Table 1 shows the results. As amyl phenol was formed besides phenol ethers which decomposed again on heating, the authors studied at what ratio phenol : amyl phenol (designated initial molar saturation) the optimum yield in isoamylenes was obtained. Fig. 9 shows the result. Experiments made under the supervision of H. I. Arkhipov at the Ivanovskiy khimiko-tehnologicheskii institut (Ivanovo Chemotechnical Institute) showed that the resulting amyl phenol could be used for the production of phenol formaldehyde resins. Papers by V. N. Ipat'yev, I. P. Tsukervanik, and Z. N. Nazarova, V. N. Isagulyants, and P. P. Bagryantseva are mentioned. There are 9 figures, 2 tables, and 8 references: 3 Soviet-bloc and 5 non-Soviet-bloc.

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Joint production of isoamylenes ...

Legend to Fig. 3: a) temperature;
b) yield of isoamylenes in % of
the absorbed vapor;

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B101/B203

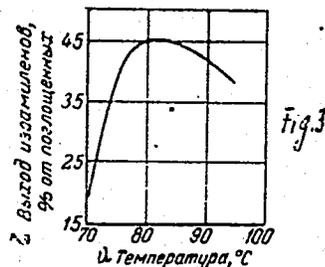


Fig. 3

Legend to Fig. 6: a) molar ratio
isoamylenes : phenol;
b) yield of
isoamylenes in % of the absorbed
vapor;

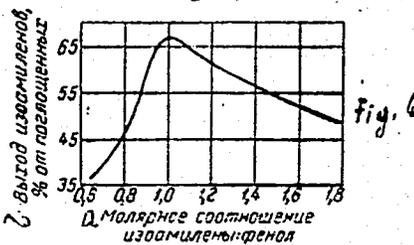


Fig. 6

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Joint production of isoamylenes ...

S/064/61/COO/003/002/009
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Legend to Fig. 7: a) molar ratio
isoamylenes : phenol; b) phenol
and amyl phenol, % by weight

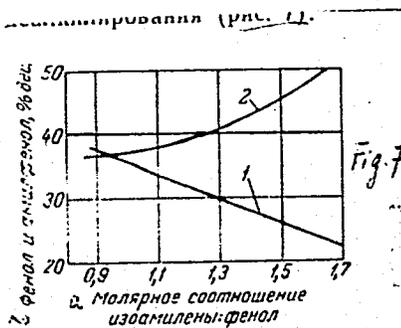


Fig. 7

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